### **Software Requirements Specification (SRS)**

**OctoPerf PetStore Demo Application**

### **1. Overview**

This document outlines the Software Requirements Specification (SRS) for the OctoPerf PetStore Demo Application. It focuses on catalog-related features such as user registration, login, product search, shopping cart management, and order processing.

It defines both functional and non-functional requirements and serves as a guide for development, testing, and future maintenance.

#### **1.1 Scope**

The OctoPerf PetStore is a simulation of a typical online pet shop. Users should be able to:

* Create a new account
* Log in to their account
* Search for products
* Add items to a shopping cart
* Complete orders

This SRS covers the catalog functionalities available at:

<https://petstore.octoperf.com/actions/Catalog.action>

### **2. References**

* OctoPerf PetStore Demo Documentation
* JMeter Testing Documentation
* IEEE 830-1998 (Guidelines for Software Requirements Specifications)
* Selenium Documentation

### **3. Definitions**

|  |  |
| --- | --- |
| **Term** | **Meaning** |
| SRS | Software Requirements Specification |
| QA | Quality Assurance |
| JMeter | Open-source tool for performance and load testing |
| Selenium | Framework for automating web browser interactions |
| Cart | Virtual basket holding items before checkout |
| Checkout | Final step of placing an order |
| User | Any visitor using the PetStore platform |

### **4. Key Considerations for an Effective SRS**

#### **4.1 Purpose of the SRS**

* Capture all user-facing catalog-related requirements
* Document constraints, assumptions, and non-functional needs

#### **4.2 Target Environment**

* Web-based platform accessible via Chrome and Firefox
* Requires internet access
* Hosted in the OctoPerf demo environment

#### **4.3 Qualities of a Good SRS**

* **Correct**: Requirements can be validated through tests
* **Clear**: Free of ambiguity
* **Complete**: Covers all critical user actions
* **Consistent**: No conflicting requirements
* **Prioritized**: Important features like registration and checkout are highlighted
* **Modifiable**: Easy to update
* **Traceable**: Each requirement maps to a business need or feature

#### **4.4 Team Collaboration**

* Prepared with input from developers, QA, project managers, and stakeholders
* Validated through review sessions

#### **4.5 SRS Maintenance**

* Future updates may arise due to business, UI, or technical changes
* All changes tracked via version control

#### **4.6 Prototyping**

* A working demo is available to observe and test user flows

#### **4.7 Design Mentions in the SRS**

* Key actions (e.g., "Add to Cart", "Place Order") are included functionally
* Visual designs (e.g., wireframes) are maintained separately

#### **4.8 Project Goals Embedded in SRS**

* Requirements reflect goals like user-friendly shopping, secure login, and reliable order confirmation

### **5. SRS Structure**

#### **5.1 Introduction**

Describes the document’s purpose, intended audience, scope, and coverage of catalog-related operations.

#### **5.2 Overall Description**

* **Product Context**: A standalone web app
* **Main Features**:
  + User registration and login
  + Product search
  + Cart management
  + Order placement with confirmation
* **User Profile**: General users with basic internet skills
* **Constraints**:
  + Browser support: Chrome, Firefox
  + Session expires after inactivity
* **Assumptions**:
  + Internet and database availability

#### **5.3 Specific Requirements**

* **User Registration**
  + Required fields: username, password, email
  + Duplicate username check
* **Login**
  + Valid credentials required
  + Successful login redirects to catalog page
* **Product Search**
  + Search using keywords
  + Display of product name and price in results
* **Cart Management**
  + Add, update, and remove products
* **Order Placement**
  + Checkout from cart
  + Confirm shipping and payment details
  + Show order summary
* **Error Handling**
  + Clear error messages for invalid actions

#### **5.4 Supporting Requirements**

* **User Interface**
  + Simple layout with clear search, cart, and checkout options
* **Performance**
  + Pages should load within 2 seconds under normal use
* **Security**
  + Encrypted passwords
  + Secure session handling
* **Tools Used**
  + JMeter for performance testing
  + Selenium for test automation